

|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                              |                                                            |                                                                     |                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------|
| <b>Prüfbericht-Nr.:</b><br>Test report no.:                                                                                                                                                                                                                                                                                                                                                                                                         | CN213YZV (P22-WWAN)<br>001                                                                                                                                                                                                                                                                                   | <b>Auftrags-Nr.:</b><br>Order no.:                         | 238517543                                                           | Seite 1 von 22<br>Page 1 of 22           |
| <b>Kunden-Referenz-Nr.:</b><br>Client reference no.:                                                                                                                                                                                                                                                                                                                                                                                                | N/A                                                                                                                                                                                                                                                                                                          | <b>Auftragsdatum:</b><br>Order date:                       | 2021-07-12                                                          |                                          |
| <b>Auftraggeber:</b><br>Client:                                                                                                                                                                                                                                                                                                                                                                                                                     | AGUILA CONVERGENCE WORLDWIDE, INC.<br>46168,1581 S. Perry road,Plainfield,Indiana,USA                                                                                                                                                                                                                        |                                                            |                                                                     |                                          |
| <b>Prüfgegenstand:</b><br>Test item:                                                                                                                                                                                                                                                                                                                                                                                                                | Secure Dongle,OOB Dongle                                                                                                                                                                                                                                                                                     |                                                            |                                                                     |                                          |
| <b>Bezeichnung / Typ-Nr.:</b><br>Identification / Type no.:                                                                                                                                                                                                                                                                                                                                                                                         | NCT8610,NCT9610                                                                                                                                                                                                                                                                                              |                                                            |                                                                     |                                          |
| <b>Auftrags-Inhalt:</b><br>Order content:                                                                                                                                                                                                                                                                                                                                                                                                           | FCC Part 22 Test report                                                                                                                                                                                                                                                                                      |                                                            |                                                                     |                                          |
| <b>Prüfgrundlage:</b><br>Test specification:                                                                                                                                                                                                                                                                                                                                                                                                        | FCC 47CFR Part 22 Subpart H                                                                                                                                                                                                                                                                                  |                                                            |                                                                     |                                          |
| <b>Wareneingangsdatum:</b><br>Date of sample receipt:                                                                                                                                                                                                                                                                                                                                                                                               | 2021-07-07                                                                                                                                                                                                                                                                                                   |                                                            |                                                                     |                                          |
| <b>Prüfmuster-Nr.:</b><br>Test sample no:                                                                                                                                                                                                                                                                                                                                                                                                           | A003086990-033                                                                                                                                                                                                                                                                                               |                                                            |                                                                     |                                          |
| <b>Prüfzeitraum:</b><br>Testing period:                                                                                                                                                                                                                                                                                                                                                                                                             | 2021-08-05 - 2021-09-03                                                                                                                                                                                                                                                                                      |                                                            |                                                                     |                                          |
| <b>Ort der Prüfung:</b><br>Place of testing:                                                                                                                                                                                                                                                                                                                                                                                                        | EMC/RF Taipei Testing Site                                                                                                                                                                                                                                                                                   |                                                            |                                                                     |                                          |
| <b>Prüflaboratorium:</b><br>Testing laboratory:                                                                                                                                                                                                                                                                                                                                                                                                     | Taipei Testing Laboratories                                                                                                                                                                                                                                                                                  |                                                            |                                                                     |                                          |
| <b>Prüfergebnis*:</b><br>Test result*:                                                                                                                                                                                                                                                                                                                                                                                                              | Pass                                                                                                                                                                                                                                                                                                         |                                                            |                                                                     |                                          |
| <b>überprüft von:</b><br>compiled by:                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                              |                                                            | <b>genehmigt von:</b><br>authorized by:                             |                                          |
| <b>Datum:</b><br>Date:                                                                                                                                                                                                                                                                                                                                                                                                                              | 2021-10-19                                                                                                                                                                                                                                                                                                   | <b>Ausstellungsdatum:</b><br>Issue date:                   | 2021-10-19                                                          | Brenda Chen                              |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                         | Senior Project Manager                                                                                                                                                                                                                                                                                       | <b>Stellung / Position:</b>                                | Senior Project Manager                                              |                                          |
| <b>Sonstiges / Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                           | This report evaluated Radiated Spurious Emissions and ERP only. The other test items are referred to the module report no.: (NIE) 59675RRF.003 and 59675RRF.004 for the details.<br>The model/product names are electrically identical, the differences are the package, and the color of the case and logo. |                                                            |                                                                     |                                          |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br>Condition of the test item at delivery:                                                                                                                                                                                                                                                                                                                                                     | Prüfmuster vollständig und unbeschädigt<br>Test item complete and undamaged                                                                                                                                                                                                                                  |                                                            |                                                                     |                                          |
| <b>* Legende:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1 = sehr gut<br>P(ass) = entspricht o.g. Prüfgrundlage(n)                                                                                                                                                                                                                                                    | 2 = gut<br>F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | 3 = befriedigend<br>F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | 4 = ausreichend<br>N/A = nicht anwendbar |
| <b>* Legend:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 = very good<br>P(ass) = passed a.m. test specification(s)                                                                                                                                                                                                                                                  | 2 = good<br>F(ail) = failed a.m. test specification(s)     | 3 = satisfactory<br>F(ail) = failed a.m. test specification(s)      | 4 = sufficient<br>N/A = not applicable   |
| <b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b><br>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark. |                                                                                                                                                                                                                                                                                                              |                                                            |                                                                     |                                          |

## TEST SUMMARY

| Report Section | FCC Clause           | Test Item                                           | Result |
|----------------|----------------------|-----------------------------------------------------|--------|
| 5.1.1          | 2.1046<br>22.913 (a) | Conducted Output Power and Effective Radiated Power | Pass   |
| 5.1.2          | 2.1053<br>22.917(a)  | Radiated Spurious Emissions                         | Pass   |

**Note:** Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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**APPENDIX A - TEST RESULT OF RADIATED SPURIOUS EMISSIONS**

**APPENDIX SP - PHOTOGRAPHS TEST SETUP**

**APPENDIX EP - PHOTOGRAPHS OF EUT**

**Prüfbericht - Nr.: CN213YZV (P22-WWAN) 001**  
*Test Report No.*

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### HISTORY OF THIS TEST REPORT

| Report No.                    | Description      | Date Issued |
|-------------------------------|------------------|-------------|
| CN213YZV<br>(P22-WWAN)<br>001 | Original Release | 2021-10-19  |

## 1. General Remarks

### 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

**Appendix A - Test Result of Radiated Spurious Emissions**

**Appendix SP - Photographs Test Setup**

**Appendix EP - Photographs of EUT**

### Applied Standard and Test Levels

| Radio                                                    |
|----------------------------------------------------------|
| FCC 47 CFR Part 2                                        |
| FCC 47 CFR Part 22 Subpart H                             |
| KDB 971168 D01 Power Meas License Digital Systems v03r01 |
| ANSI/TIA/EIA-603-E 2016                                  |
| ANSI C63.26-2015                                         |

### 1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

## 2. Test Sites

### 2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.  
Taipei City 105  
Taiwan (R.O.C.)

### 2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,  
New Taipei City 244  
Taiwan (R.O.C.)  
FCC Registration No.: 226631  
ISED Registration No.: 25563

## 2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of  $k=2$  to indicate a 95% level of confidence.

### Emission Measurement Uncertainty

| Parameter                            | Uncertainty   |
|--------------------------------------|---------------|
| Radiated Emission (9 kHz ~ 30 MHz)   | $\pm 1.15$ dB |
| Radiated Emission (30 MHz ~ 200 MHz) | $\pm 1.30$ dB |
| Radiated Emission (200 MHz ~ 1 GHz)  | $\pm 1.30$ dB |
| Radiated Emission (1 GHz ~ 18 GHz)   | $\pm 1.54$ dB |
| Radiated Emission (18 GHz ~ 40 GHz)  | $\pm 2.52$ dB |

## 3. General Product Information

### 3.1 Product Function and Intended Use

The EUT is a Secure Dongle, OOB Dongle. It contains a WWAN compatible module enabling the user to communicate data through a Wireless interface.

For details refer to the User Guide, Data Sheet and Circuit Diagram.

### 3.2 System Details and Ratings

#### Basic Information of EUT

| Item                        | EUT information           |
|-----------------------------|---------------------------|
| Kind of Equipment/Test Item | Secure Dongle, OOB Dongle |
| Type Identification         | NCT8610, NCT9610          |
| FCC ID                      | 2AZE921NCT8610            |

#### Technical Specification of EUT

| Item                | EUT information               |                       |                   |
|---------------------|-------------------------------|-----------------------|-------------------|
| Operating Frequency | Cat-M1                        | LTE Band 5 (1.4 MHz)  | 824.7 ~ 848.3 MHz |
|                     |                               | LTE Band 5 (3 MHz)    | 825.5 ~ 847.5 MHz |
|                     |                               | LTE Band 5 (5 MHz)    | 826.5 ~ 846.5 MHz |
|                     |                               | LTE Band 5 (10 MHz)   | 829 ~ 844 MHz     |
|                     |                               | LTE Band 26 (1.4 MHz) | 824.7 ~ 848.3 MHz |
|                     |                               | LTE Band 26 (3 MHz)   | 825.5 ~ 847.5 MHz |
|                     |                               | LTE Band 26 (5 MHz)   | 826.5 ~ 846.5 MHz |
|                     |                               | LTE Band 26 (10 MHz)  | 829 ~ 844 MHz     |
|                     | NB-IoT                        | LTE Band 26 (15 MHz)  | 831.5 ~ 841.5 MHz |
|                     |                               | LTE Band 5            | 824.1 ~ 848.9 MHz |
| Modulation          | NB-IoT                        | LTE Band 26           | 824.1 ~ 848.9 MHz |
|                     | Cat-M1                        | QPSK, 16QAM           |                   |
| Operation Voltage   | 3.8 Vdc                       |                       |                   |
| Antenna Information | PCB antenna with 1.3 dBi gain |                       |                   |
| Accessory Device    | Refer to 4.3                  |                       |                   |

**Maximum ERP**

| Item              | Band   |                       | Value |
|-------------------|--------|-----------------------|-------|
| Maximum ERP (dBm) | Cat-M1 | LTE Band 5 (1.4 MHz)  | 22.41 |
|                   |        | LTE Band 5 (3 MHz)    | 22.49 |
|                   |        | LTE Band 5 (5 MHz)    | 22.57 |
|                   |        | LTE Band 5 (10 MHz)   | 22.63 |
|                   |        | LTE Band 26 (1.4 MHz) | 22.46 |
|                   |        | LTE Band 26 (3 MHz)   | 22.42 |
|                   |        | LTE Band 26 (5 MHz)   | 22.47 |
|                   |        | LTE Band 26 (10 MHz)  | 22.60 |
|                   |        | LTE Band 26 (15 MHz)  | 22.68 |
|                   | NB-IoT | Band 5                | 22.29 |
|                   |        | Band 26               | 22.33 |

### **3.3 Noise Generating and Noise Suppressing Parts**

Refer to the Circuit Diagram.

### **3.4 Submitted Documents**

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

## 4. Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Setup for testing: Test samples make a communication with CMW500 which makes it possible to control them through a test software installed on a notebook computer.

This software was running on the laptop computer connected to the EUT. It was used to enable the operation modes listed as below.

|               |           |
|---------------|-----------|
| Test Software | QCOM_V1.6 |
|---------------|-----------|

The samples were used as follows:  
A003086990-033

Full test was applied on all test modes, but only worst case was shown.

#### Effective Radiated Power (ERP)

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT Configure Mode | Band        | Channel Bandwidth | Available Channel | Tested Channel      | Modulation  |
|--------------------|-------------|-------------------|-------------------|---------------------|-------------|
| Cat-M1             | LTE Band 5  | 1.4 MHz           | 20407 to 20643    | 20407, 20525, 20643 | QPSK, 16QAM |
|                    |             | 3 MHz             | 20415 to 20635    | 20415, 20525, 20635 | QPSK, 16QAM |
|                    |             | 5 MHz             | 20425 to 20625    | 20425, 20525, 20625 | QPSK, 16QAM |
|                    |             | 10 MHz            | 20450 to 20600    | 20450, 20525, 20600 | QPSK, 16QAM |
|                    | LTE Band 26 | 1.4 MHz           | 26797 to 27033    | 26797, 26915, 27033 | QPSK, 16QAM |
|                    |             | 3 MHz             | 26805 to 27025    | 26805, 26915, 27025 | QPSK, 16QAM |
|                    |             | 5 MHz             | 26815 to 27015    | 26815, 26915, 27015 | QPSK, 16QAM |
|                    |             | 10 MHz            | 26840 to 26990    | 26840, 26915, 26990 | QPSK, 16QAM |
|                    |             | 15 MHz            | 26865 to 26965    | 26865, 26915, 26965 | QPSK, 16QAM |

| EUT Configure Mode | Band        | Available Channel | Tested Channel      | Sub-Carrier Bandwidth | Modulation | Ntones |
|--------------------|-------------|-------------------|---------------------|-----------------------|------------|--------|
| NB-IoT             | LTE Band 5  | 20401 to 20649    | 20401, 20525, 20649 | 3.75 kHz              | BPSK       | 1@47   |
|                    |             |                   |                     | 15 kHz                | QPSK       | 3@3    |
|                    | LTE Band 26 | 26791 to 27039    | 26791, 26915, 27039 | 3.75 kHz              | BPSK       | 1@47   |
|                    |             |                   |                     | 15 kHz                | QPSK       | 3@3    |

**Radiated Spurious Emissions**

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT Configure Mode | Band        | Channel Bandwidth | Available Channel | Tested Channel      | Modulation | Position |
|--------------------|-------------|-------------------|-------------------|---------------------|------------|----------|
| Cat-M1             | LTE Band 5  | 10 MHz            | 20450 to 20600    | 20450, 20525, 20600 | QPSK       | Z-plane  |
|                    | LTE Band 26 | 15 MHz            | 26865 to 26965    | 26865, 26915, 26965 | QPSK       | Z-plane  |

| EUT Configure Mode | Band        | Available Channel | Tested Channel      | Sub-Carrier Bandwidth | Modulation | Ntones | Position |
|--------------------|-------------|-------------------|---------------------|-----------------------|------------|--------|----------|
| NB-IoT             | LTE Band 5  | 20401 to 20649    | 20401, 20525, 20649 | 15 kHz                | QPSK       | 3@3    | Z-plane  |
|                    | LTE Band 26 | 26791 to 27039    | 26791, 26915, 27039 | 15 kHz                | QPSK       | 3@3    | Z-plane  |

Note: BLE is enabled.

**Test Condition**

| Test Item                   | Ambient Temperature | Relative Humidity | Tested by |
|-----------------------------|---------------------|-------------------|-----------|
| ERP                         | 21.6-25.8 °C        | 46.2-66.5 %       | Andy Chen |
| Radiated Spurious Emissions | 23.1-25.1 °C        | 50-60 %           | Kay Wu    |

## 4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

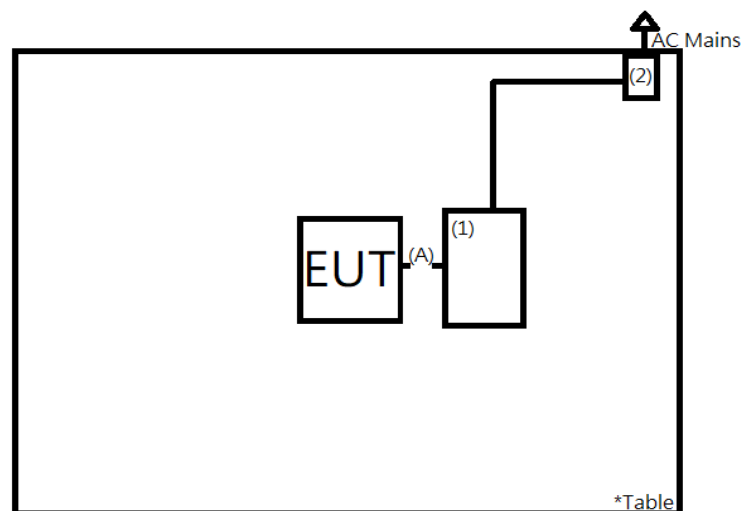
### Accessory of EUT

| No. | Product          | Brand                     | Model          | Description                   |
|-----|------------------|---------------------------|----------------|-------------------------------|
| A   | USB Type-C Cable | ACES Electronics Co.,Ltd. | 60-6363-860-FA | 12 cm shielded cable w/o core |

### Support Unit

| Support Unit |             |       |             |           |          |                    |             |        |
|--------------|-------------|-------|-------------|-----------|----------|--------------------|-------------|--------|
| No           | Description | Brand | Model       | S/N       | Shielded | Ferrite Core (Qty) | Length (cm) | Remark |
| 1            | Notebook    | HP    | 15-da1064TX | CND911MY2 | -        | -                  | -           | -      |
| 2            | Adapter     | HP    | TPN-LA16    | N/A       | NO       | NO                 | 180         | -      |

## 4.4 Test Setup Diagram



## 5. Test Results

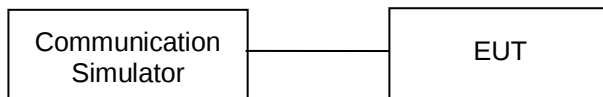
### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Conducted Output Power and ERP

**Limit** 7 watt (ERP)

**Kind of Test Site** Shielded room

**Test Setup**



#### Test Instruments

| Kind of Equipment            | Manufacturer | Type    | S/N        | Calibration Date | Calibration Due Date | Test Date |          |
|------------------------------|--------------|---------|------------|------------------|----------------------|-----------|----------|
|                              |              |         |            |                  |                      | From      | Until    |
| Radio Communication Analyzer | Anritsu      | MT8821C | 6262044753 | 2021/1/29        | 2022/1/28            | 2021/8/5  | 2021/9/3 |

#### Test Procedures

The EUT was set up for the maximum power with WWAN link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

$EIRP = \text{Conducted Power} + \text{Antenna Gain}$

$ERP = EIRP - 2.15$

**Test Result**
**<Conducted Output Power>**

| LTE Cat-M1 B5/BW=1.4M |            |              |             |                 | Average Conducted Power (dBm) |                 |                 | LTE Cat-M1 B5/BW=3M  |            |              |             |                 | Average Conducted Power (dBm) |                 |                 |
|-----------------------|------------|--------------|-------------|-----------------|-------------------------------|-----------------|-----------------|----------------------|------------|--------------|-------------|-----------------|-------------------------------|-----------------|-----------------|
| Modula-<br>-tion      | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz)        |                 |                 | Modula-<br>-tion     | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz)        |                 |                 |
|                       |            |              |             |                 | 20407/<br>824.7               | 20525/<br>836.5 | 20643/<br>848.3 |                      |            |              |             |                 | 20415/<br>825.5               | 20525/<br>836.5 | 20635/<br>847.5 |
| QPSK                  | 1          | 0            | 0           | 23.50           | 23.21                         | 23.19           | 23.22           | QPSK                 | 1          | 0            | 0           | 23.50           | 23.16                         | 23.21           | 23.25           |
|                       | 1          | 5            | 0           | 23.50           | 23.23                         | 23.23           | 23.26           |                      | 1          | 5            | 1           | 23.50           | 23.34                         | 23.18           | 23.23           |
|                       | 3          | 0            | 0           | 22.50           | 22.33                         | 22.34           | 22.26           |                      | 3          | 0            | 0           | 22.50           | 22.37                         | 22.42           | 22.30           |
|                       | 3          | 3            | 0           | 22.50           | 22.35                         | 22.38           | 22.37           |                      | 3          | 3            | 1           | 22.50           | 22.36                         | 22.29           | 22.32           |
|                       | 6          | 0            | 0           | 21.50           | 21.38                         | 21.33           | 21.39           |                      | 6          | 0            | 0           | 21.50           | 21.48                         | 21.37           | 21.39           |
|                       |            |              |             |                 |                               |                 |                 |                      | 6          | 0            | 1           | 21.50           | 21.47                         | 21.43           | 21.42           |
| 16QAM                 | 1          | 0            | 0           | 22.50           | 22.42                         | 22.36           | 22.43           | 16QAM                | 1          | 0            | 0           | 22.50           | 22.36                         | 22.41           | 22.37           |
|                       | 1          | 4            | 0           | 22.50           | 22.47                         | 22.50           | 22.46           |                      | 1          | 4            | 1           | 22.50           | 22.40                         | 22.32           | 22.44           |
|                       | 3          | 0            | 0           | 21.50           | 21.34                         | 21.42           | 21.41           |                      | 3          | 0            | 0           | 22.00           | 21.42                         | 21.43           | 21.28           |
|                       | 3          | 2            | 0           | 21.50           | 21.32                         | 21.43           | 21.39           |                      | 3          | 2            | 1           | 22.00           | 21.54                         | 21.46           | 21.30           |
|                       | 5          | 0            | 0           | 21.50           | 21.41                         | 21.32           | 21.30           |                      | 5          | 0            | 0           | 21.50           | 21.35                         | 21.42           | 21.34           |
|                       |            |              |             |                 |                               |                 |                 |                      | 5          | 0            | 1           | 21.50           | 21.33                         | 21.29           | 21.32           |
| LTE Cat-M1 B5/BW=5M   |            |              |             |                 | Average Conducted Power (dBm) |                 |                 | LTE Cat-M1 B5/BW=10M |            |              |             |                 | Average Conducted Power (dBm) |                 |                 |
| Modula-<br>-tion      | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz)        |                 |                 | Modula-<br>-tion     | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz)        |                 |                 |
|                       |            |              |             |                 | 20425/<br>826.5               | 20525/<br>836.5 | 20625/<br>846.5 |                      |            |              |             |                 | 20450/<br>829                 | 20525/<br>836.5 | 20600/<br>844   |
| QPSK                  | 1          | 0            | 0           | 23.50           | 23.20                         | 23.22           | 23.29           | QPSK                 | 1          | 0            | 0           | 23.50           | 23.37                         | 23.48           | 23.27           |
|                       | 1          | 0            | 3           | 23.50           | 23.25                         | 23.21           | 23.27           |                      | 1          | 0            | 3           | 23.50           | 23.32                         | 23.37           | 23.26           |
|                       | 1          | 5            | 0           | 23.50           | 23.15                         | 23.24           | 23.30           |                      | 1          | 5            | 4           | 23.50           | 23.33                         | 23.29           | 23.27           |
|                       | 1          | 5            | 3           | 23.50           | 23.32                         | 23.13           | 23.24           |                      | 1          | 5            | 7           | 23.50           | 23.26                         | 23.27           | 23.28           |
|                       | 3          | 0            | 0           | 22.50           | 22.39                         | 22.38           | 22.31           |                      | 3          | 0            | 0           | 23.50           | 23.36                         | 23.45           | 23.37           |
|                       | 3          | 3            | 3           | 22.50           | 22.36                         | 22.36           | 22.32           |                      | 3          | 3            | 7           | 23.50           | 23.35                         | 23.36           | 23.35           |
|                       | 6          | 0            | 0           | 22.50           | 22.38                         | 22.39           | 22.34           |                      | 6          | 0            | 0           | 22.50           | 22.31                         | 22.46           | 22.34           |
|                       | 6          | 0            | 3           | 22.50           | 22.35                         | 22.37           | 22.33           |                      | 6          | 0            | 7           | 22.50           | 22.32                         | 22.38           | 22.30           |
| 16QAM                 | 1          | 0            | 0           | 23.50           | 23.27                         | 23.18           | 23.29           | 16QAM                | 1          | 0            | 0           | 23.50           | 23.20                         | 23.35           | 23.19           |
|                       | 1          | 0            | 3           | 23.50           | 23.24                         | 23.33           | 23.26           |                      | 1          | 0            | 3           | 23.50           | 23.18                         | 23.26           | 23.13           |
|                       | 1          | 4            | 0           | 23.50           | 23.26                         | 23.27           | 23.42           |                      | 1          | 4            | 4           | 23.50           | 23.26                         | 23.13           | 23.18           |
|                       | 1          | 4            | 3           | 23.50           | 23.33                         | 23.32           | 23.38           |                      | 1          | 4            | 7           | 23.50           | 23.30                         | 23.22           | 23.21           |
|                       | 3          | 0            | 0           | 23.00           | 22.52                         | 22.52           | 22.37           |                      | 3          | 0            | 0           | 23.50           | 23.24                         | 23.22           | 23.23           |
|                       | 3          | 2            | 3           | 23.00           | 22.53                         | 22.48           | 22.52           |                      | 3          | 2            | 7           | 23.50           | 23.14                         | 23.13           | 23.18           |
|                       | 5          | 0            | 0           | 22.00           | 21.33                         | 21.39           | 21.29           |                      | 5          | 0            | 0           | 22.50           | 22.45                         | 22.45           | 22.37           |
|                       | 5          | 0            | 3           | 22.00           | 21.29                         | 21.33           | 21.33           |                      | 5          | 0            | 7           | 22.50           | 22.42                         | 22.41           | 22.34           |

| LTE Cat-M1 B26/BW=1.4M |         |           |          |              | Average Conducted Power (dBm) |             |             | LTE Cat-M1 B26/BW=3M  |         |           |          |              | Average Conducted Power (dBm) |             |             |  |
|------------------------|---------|-----------|----------|--------------|-------------------------------|-------------|-------------|-----------------------|---------|-----------|----------|--------------|-------------------------------|-------------|-------------|--|
| Modula-tion            | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             | Modula-tion           | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             |  |
|                        |         |           |          |              | 26797/824.7                   | 26915/836.5 | 27033/848.3 |                       |         |           |          |              | 26805/825.5                   | 26915/836.5 | 27025/847.5 |  |
| QPSK                   | 1       | 0         | 0        | 23.50        | 23.04                         | 23.25       | 23.31       | QPSK                  | 1       | 0         | 0        | 23.50        | 23.02                         | 23.19       | 23.27       |  |
|                        | 1       | 5         | 0        | 23.50        | 23.03                         | 23.14       | 23.29       |                       | 1       | 5         | 1        | 23.50        | 23.06                         | 23.14       | 23.22       |  |
|                        | 3       | 0         | 0        | 22.50        | 22.10                         | 22.39       | 22.29       |                       | 3       | 0         | 0        | 22.50        | 22.24                         | 22.33       | 22.37       |  |
|                        | 3       | 3         | 0        | 22.50        | 22.15                         | 22.44       | 22.37       |                       | 3       | 3         | 1        | 22.50        | 22.23                         | 22.32       | 22.32       |  |
|                        | 6       | 0         | 0        | 21.50        | 21.24                         | 21.32       | 21.38       |                       | 6       | 0         | 0        | 21.50        | 21.18                         | 21.30       | 21.33       |  |
|                        |         |           |          |              |                               |             |             |                       | 6       | 0         | 1        | 21.50        | 21.31                         | 21.39       | 21.34       |  |
| 16QAM                  | 1       | 0         | 0        | 23.00        | 22.35                         | 22.41       | 22.45       | 16QAM                 | 1       | 0         | 0        | 22.50        | 22.49                         | 22.37       | 22.38       |  |
|                        | 1       | 4         | 0        | 22.50        | 22.34                         | 22.38       | 22.37       |                       | 1       | 4         | 1        | 22.50        | 22.34                         | 22.26       | 22.24       |  |
|                        | 3       | 0         | 0        | 22.00        | 21.29                         | 21.35       | 21.51       |                       | 3       | 0         | 0        | 21.50        | 21.28                         | 21.33       | 21.33       |  |
|                        | 3       | 2         | 0        | 22.00        | 21.35                         | 21.43       | 21.53       |                       | 3       | 2         | 1        | 21.50        | 21.23                         | 21.29       | 21.24       |  |
|                        | 5       | 0         | 0        | 22.00        | 21.25                         | 21.28       | 21.44       |                       | 5       | 0         | 0        | 21.50        | 21.35                         | 21.26       | 21.42       |  |
|                        |         |           |          |              |                               |             |             |                       | 5       | 0         | 1        | 21.50        | 21.25                         | 21.35       | 21.36       |  |
| LTE Cat-M1 B26/BW=5M   |         |           |          |              | Average Conducted Power (dBm) |             |             | LTE Cat-M1 B26/BW=10M |         |           |          |              | Average Conducted Power (dBm) |             |             |  |
| Modula-tion            | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             | Modula-tion           | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             |  |
|                        |         |           |          |              | 26815/826.5                   | 26915/836.5 | 27015/846.5 |                       |         |           |          |              | 26840/829                     | 26915/836.5 | 26990/844   |  |
| QPSK                   | 1       | 0         | 0        | 23.50        | 23.22                         | 23.20       | 23.24       | QPSK                  | 1       | 0         | 0        | 23.50        | 23.32                         | 23.29       | 23.26       |  |
|                        | 1       | 0         | 3        | 23.50        | 23.19                         | 23.17       | 23.22       |                       | 1       | 0         | 3        | 23.50        | 23.30                         | 23.27       | 23.23       |  |
|                        | 1       | 5         | 0        | 23.50        | 23.09                         | 23.13       | 23.28       |                       | 1       | 5         | 4        | 23.50        | 23.26                         | 23.21       | 23.24       |  |
|                        | 1       | 5         | 3        | 23.50        | 23.05                         | 23.09       | 23.18       |                       | 1       | 5         | 7        | 23.50        | 23.27                         | 23.30       | 23.22       |  |
|                        | 3       | 0         | 0        | 23.00        | 22.31                         | 22.28       | 22.32       |                       | 3       | 0         | 0        | 23.50        | 23.45                         | 23.38       | 23.31       |  |
|                        | 3       | 3         | 3        | 23.00        | 22.28                         | 22.25       | 22.26       |                       | 3       | 3         | 7        | 23.50        | 23.40                         | 23.33       | 23.35       |  |
|                        | 6       | 0         | 0        | 22.50        | 22.29                         | 22.32       | 22.31       |                       | 6       | 0         | 0        | 22.50        | 22.32                         | 22.32       | 22.36       |  |
| 16QAM                  | 1       | 0         | 0        | 23.50        | 23.32                         | 23.29       | 23.17       | 16QAM                 | 1       | 0         | 0        | 23.50        | 23.32                         | 23.22       | 23.18       |  |
|                        | 1       | 0         | 3        | 23.50        | 23.23                         | 23.26       | 23.06       |                       | 1       | 0         | 3        | 23.50        | 23.26                         | 23.19       | 23.11       |  |
|                        | 1       | 4         | 0        | 23.50        | 23.26                         | 23.32       | 23.13       |                       | 1       | 4         | 4        | 23.50        | 23.27                         | 23.35       | 23.18       |  |
|                        | 1       | 4         | 3        | 23.50        | 23.29                         | 22.43       | 23.17       |                       | 1       | 4         | 7        | 23.50        | 23.24                         | 23.31       | 23.23       |  |
|                        | 3       | 0         | 0        | 23.00        | 22.53                         | 22.56       | 22.62       |                       | 3       | 0         | 0        | 23.50        | 23.09                         | 23.16       | 23.12       |  |
|                        | 3       | 2         | 3        | 23.00        | 22.46                         | 22.52       | 22.48       |                       | 3       | 2         | 7        | 23.50        | 23.21                         | 23.12       | 23.10       |  |
|                        | 5       | 0         | 0        | 21.50        | 21.45                         | 21.32       | 21.36       |                       | 5       | 0         | 0        | 22.50        | 22.42                         | 22.49       | 22.46       |  |
| LTE Cat-M1 B26/BW=15M  |         |           |          |              | Average Conducted Power (dBm) |             |             |                       |         |           |          |              |                               |             |             |  |
| Modula-tion            | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             |                       |         |           |          |              |                               |             |             |  |
|                        |         |           |          |              | 26865/831.5                   | 26915/836.5 | 26965/841.5 |                       |         |           |          |              |                               |             |             |  |
| QPSK                   | 1       | 0         | 0        | 24.00        | 23.47                         | 23.53       | 23.36       |                       |         |           |          |              |                               |             |             |  |
|                        | 1       | 0         | 3        | 24.00        | 23.45                         | 23.47       | 23.30       |                       |         |           |          |              |                               |             |             |  |
|                        | 1       | 5         | 8        | 24.00        | 23.41                         | 23.45       | 23.28       |                       |         |           |          |              |                               |             |             |  |
|                        | 1       | 5         | 11       | 24.00        | 23.37                         | 23.41       | 23.26       |                       |         |           |          |              |                               |             |             |  |
|                        | 3       | 0         | 0        | 24.00        | 23.46                         | 23.52       | 23.32       |                       |         |           |          |              |                               |             |             |  |
|                        | 3       | 3         | 11       | 24.00        | 23.41                         | 23.48       | 23.42       |                       |         |           |          |              |                               |             |             |  |
|                        | 6       | 0         | 0        | 23.50        | 23.16                         | 23.27       | 23.28       |                       |         |           |          |              |                               |             |             |  |
| 16QAM                  | 1       | 0         | 0        | 23.50        | 23.22                         | 23.27       | 23.21       |                       |         |           |          |              |                               |             |             |  |
|                        | 1       | 0         | 3        | 23.50        | 23.17                         | 23.23       | 23.18       |                       |         |           |          |              |                               |             |             |  |
|                        | 1       | 4         | 8        | 23.50        | 23.16                         | 23.22       | 23.15       |                       |         |           |          |              |                               |             |             |  |
|                        | 1       | 4         | 11       | 23.50        | 23.14                         | 23.24       | 23.09       |                       |         |           |          |              |                               |             |             |  |
|                        | 3       | 0         | 0        | 23.50        | 23.28                         | 23.17       | 23.22       |                       |         |           |          |              |                               |             |             |  |
|                        | 3       | 2         | 11       | 23.50        | 23.15                         | 23.07       | 23.20       |                       |         |           |          |              |                               |             |             |  |
|                        | 5       | 0         | 0        | 23.50        | 23.12                         | 23.14       | 23.11       |                       |         |           |          |              |                               |             |             |  |
|                        | 5       | 0         | 11       | 23.50        | 23.08                         | 23.11       | 23.06       |                       |         |           |          |              |                               |             |             |  |

| NB-IoT B5/BW=3.75kHz |        | Average Conducted Power (dBm) |                        |                 |                 | NB-IoT B5/BW=15kHz |        | Average Conducted Power (dBm) |                        |                 |                 |
|----------------------|--------|-------------------------------|------------------------|-----------------|-----------------|--------------------|--------|-------------------------------|------------------------|-----------------|-----------------|
| Modulation           | Ntones | Max.<br>Tune-up               | Channel/Frequency(MHz) |                 |                 | Modulation         | Ntones | Max.<br>Tune-up               | Channel/Frequency(MHz) |                 |                 |
|                      |        |                               | 20401/<br>824.1        | 20525/<br>836.5 | 20649/<br>848.9 |                    |        |                               | 20401/<br>824.1        | 20525/<br>836.5 | 20649/<br>848.9 |
| BPSK                 | 1@0    | 23.50                         | 23.09                  | 23.04           | 23.03           | QPSK               | 1@0    | 23.50                         | 23.09                  | 23.14           | 23.10           |
|                      | 1@47   | 23.50                         | 23.00                  | 23.07           | 23.05           |                    | 1@11   | 23.50                         | 23.07                  | 23.02           | 23.08           |
|                      |        |                               |                        |                 |                 |                    | 3@3    | 23.50                         | 23.05                  | 23.06           | 23.04           |

| NB-IoT B26/BW=3.75kHz |        | Average Conducted Power (dBm) |                        |                 |                 | NB-IoT B26/BW=15kHz |        | Average Conducted Power (dBm) |                        |                 |                 |
|-----------------------|--------|-------------------------------|------------------------|-----------------|-----------------|---------------------|--------|-------------------------------|------------------------|-----------------|-----------------|
| Modulation            | Ntones | Max.<br>Tune-up               | Channel/Frequency(MHz) |                 |                 | Modulation          | Ntones | Max.<br>Tune-up               | Channel/Frequency(MHz) |                 |                 |
|                       |        |                               | 26791/<br>824.1        | 26915/<br>836.5 | 27039/<br>848.9 |                     |        |                               | 26791/<br>824.1        | 26915/<br>836.5 | 27039/<br>848.9 |
| BPSK                  | 1@0    | 23.50                         | 22.93                  | 22.97           | 23.01           | QPSK                | 1@0    | 23.50                         | 23.08                  | 23.18           | 23.00           |
|                       | 1@47   | 23.50                         | 22.95                  | 22.98           | 23.02           |                     | 1@11   | 23.50                         | 23.02                  | 23.16           | 22.97           |
|                       |        |                               |                        |                 |                 |                     | 3@3    | 23.50                         | 23.05                  | 23.11           | 23.01           |

**<ERP>**

| LTE Cat-M1 B5/BW=1.4M |            |              |             |                 | ERP (dBm)              |                 |                 | LTE Cat-M1 B5/BW=3M  |            |              |             |                 | ERP (dBm)              |                 |                 |
|-----------------------|------------|--------------|-------------|-----------------|------------------------|-----------------|-----------------|----------------------|------------|--------------|-------------|-----------------|------------------------|-----------------|-----------------|
| Modula-<br>tion       | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz) |                 |                 | Modula-<br>tion      | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz) |                 |                 |
|                       |            |              |             |                 | 20407/<br>824.7        | 20525/<br>836.5 | 20643/<br>848.3 |                      |            |              |             |                 | 20415/<br>825.5        | 20525/<br>836.5 | 20635/<br>847.5 |
| QPSK                  | 1          | 0            | 0           |                 | 22.36                  | 22.34           | 22.37           | QPSK                 | 1          | 0            | 0           |                 | 22.31                  | 22.36           | 22.40           |
|                       | 1          | 5            | 0           |                 | 22.38                  | 22.38           | 22.41           |                      | 1          | 5            | 1           |                 | 22.49                  | 22.33           | 22.38           |
|                       | 3          | 0            | 0           |                 | 21.48                  | 21.49           | 21.41           |                      | 3          | 0            | 0           |                 | 21.52                  | 21.57           | 21.45           |
|                       | 3          | 3            | 0           |                 | 21.50                  | 21.53           | 21.52           |                      | 3          | 3            | 1           |                 | 21.51                  | 21.44           | 21.47           |
|                       | 6          | 0            | 0           |                 | 20.53                  | 20.48           | 20.54           |                      | 6          | 0            | 0           |                 | 20.63                  | 20.52           | 20.54           |
|                       |            |              |             |                 |                        |                 |                 |                      | 6          | 0            | 1           |                 | 20.62                  | 20.58           | 20.57           |
| 16QAM                 | 1          | 0            | 0           |                 | 21.57                  | 21.51           | 21.58           | 16QAM                | 1          | 0            | 0           |                 | 21.51                  | 21.56           | 21.52           |
|                       | 1          | 4            | 0           |                 | 21.62                  | 21.65           | 21.61           |                      | 1          | 4            | 1           |                 | 21.55                  | 21.47           | 21.59           |
|                       | 3          | 0            | 0           |                 | 20.49                  | 20.57           | 20.56           |                      | 3          | 0            | 0           |                 | 20.57                  | 20.58           | 20.43           |
|                       | 3          | 2            | 0           |                 | 20.47                  | 20.58           | 20.54           |                      | 3          | 2            | 1           |                 | 20.69                  | 20.61           | 20.45           |
|                       | 5          | 0            | 0           |                 | 20.56                  | 20.47           | 20.45           |                      | 5          | 0            | 0           |                 | 20.50                  | 20.57           | 20.49           |
|                       |            |              |             |                 |                        |                 |                 |                      | 5          | 0            | 1           |                 | 20.48                  | 20.44           | 20.47           |
| LTE Cat-M1 B5/BW=5M   |            |              |             |                 | ERP (dBm)              |                 |                 | LTE Cat-M1 B5/BW=10M |            |              |             |                 | ERP (dBm)              |                 |                 |
| Modula-<br>tion       | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz) |                 |                 | Modula-<br>tion      | RB<br>Size | RB<br>Offset | NB<br>Index | Max.<br>Tune-up | Channel/Frequency(MHz) |                 |                 |
|                       |            |              |             |                 | 20425/<br>826.5        | 20525/<br>836.5 | 20625/<br>846.5 |                      |            |              |             |                 | 20450/<br>829          | 20525/<br>836.5 | 20600/<br>844   |
| QPSK                  | 1          | 0            | 0           |                 | 22.35                  | 22.37           | 22.44           | QPSK                 | 1          | 0            | 0           |                 | 22.52                  | 22.63           | 22.42           |
|                       | 1          | 0            | 3           |                 | 22.40                  | 22.36           | 22.42           |                      | 1          | 0            | 3           |                 | 22.47                  | 22.52           | 22.41           |
|                       | 1          | 5            | 0           |                 | 22.30                  | 22.39           | 22.45           |                      | 1          | 5            | 4           |                 | 22.48                  | 22.44           | 22.42           |
|                       | 1          | 5            | 3           |                 | 22.47                  | 22.28           | 22.39           |                      | 1          | 5            | 7           |                 | 22.41                  | 22.42           | 22.43           |
|                       | 3          | 0            | 0           |                 | 21.54                  | 21.53           | 21.46           |                      | 3          | 0            | 0           |                 | 22.51                  | 22.60           | 22.52           |
|                       | 3          | 3            | 3           |                 | 21.51                  | 21.51           | 21.47           |                      | 3          | 3            | 7           |                 | 22.50                  | 22.51           | 22.50           |
|                       | 6          | 0            | 0           |                 | 21.53                  | 21.54           | 21.49           |                      | 6          | 0            | 0           |                 | 21.46                  | 21.61           | 21.49           |
|                       | 6          | 0            | 3           |                 | 21.50                  | 21.52           | 21.48           |                      | 6          | 0            | 7           |                 | 21.47                  | 21.53           | 21.45           |
| 16QAM                 | 1          | 0            | 0           |                 | 22.42                  | 22.33           | 22.44           | 16QAM                | 1          | 0            | 0           |                 | 22.35                  | 22.50           | 22.34           |
|                       | 1          | 0            | 3           |                 | 22.39                  | 22.48           | 22.41           |                      | 1          | 0            | 3           |                 | 22.33                  | 22.41           | 22.28           |
|                       | 1          | 4            | 0           |                 | 22.41                  | 22.42           | 22.57           |                      | 1          | 4            | 4           |                 | 22.41                  | 22.28           | 22.33           |
|                       | 1          | 4            | 3           |                 | 22.48                  | 22.47           | 22.53           |                      | 1          | 4            | 7           |                 | 22.45                  | 22.37           | 22.36           |
|                       | 3          | 0            | 0           |                 | 21.67                  | 21.67           | 21.52           |                      | 3          | 0            | 0           |                 | 22.39                  | 22.37           | 22.38           |
|                       | 3          | 2            | 3           |                 | 21.68                  | 21.63           | 21.67           |                      | 3          | 2            | 7           |                 | 22.29                  | 22.28           | 22.33           |
|                       | 5          | 0            | 0           |                 | 20.48                  | 20.54           | 20.44           |                      | 5          | 0            | 0           |                 | 21.60                  | 21.60           | 21.52           |
|                       | 5          | 0            | 3           |                 | 20.44                  | 20.48           | 20.48           |                      | 5          | 0            | 7           |                 | 21.57                  | 21.56           | 21.49           |

| LTE Cat-M1 B26/BW=1.4M |         |           |          |              | ERP (dBm)                     |             |             | LTE Cat-M1 B26/BW=3M  |         |           |          | ERP (dBm)    |                        |             |             |
|------------------------|---------|-----------|----------|--------------|-------------------------------|-------------|-------------|-----------------------|---------|-----------|----------|--------------|------------------------|-------------|-------------|
| Modula-tion            | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             | Modula-tion           | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz) |             |             |
|                        |         |           |          |              | 26797/824.7                   | 26915/836.5 | 27033/848.3 |                       |         |           |          |              | 26805/825.5            | 26915/836.5 | 27025/847.5 |
| QPSK                   | 1       | 0         | 0        |              | 22.19                         | 22.40       | 22.46       | QPSK                  | 1       | 0         | 0        |              | 22.17                  | 22.34       | 22.42       |
|                        | 1       | 5         | 0        |              | 22.18                         | 22.29       | 22.44       |                       | 1       | 5         | 1        |              | 22.21                  | 22.29       | 22.37       |
|                        | 3       | 0         | 0        |              | 21.25                         | 21.54       | 21.44       |                       | 3       | 0         | 0        |              | 21.39                  | 21.48       | 21.52       |
|                        | 3       | 3         | 0        |              | 21.30                         | 21.59       | 21.52       |                       | 3       | 3         | 1        |              | 21.38                  | 21.47       | 21.47       |
|                        | 6       | 0         | 0        |              | 20.39                         | 20.47       | 20.53       |                       | 6       | 0         | 0        |              | 20.33                  | 20.45       | 20.48       |
|                        | /       | /         | /        |              | /                             | /           | /           |                       | 6       | 0         | 1        |              | 20.46                  | 20.54       | 20.49       |
| 16QAM                  | 1       | 0         | 0        |              | 21.50                         | 21.56       | 21.60       | 16QAM                 | 1       | 0         | 0        |              | 21.64                  | 21.52       | 21.53       |
|                        | 1       | 4         | 0        |              | 21.49                         | 21.53       | 21.52       |                       | 1       | 4         | 1        |              | 21.49                  | 21.41       | 21.39       |
|                        | 3       | 0         | 0        |              | 20.44                         | 20.50       | 20.66       |                       | 3       | 0         | 0        |              | 20.43                  | 20.48       | 20.48       |
|                        | 3       | 2         | 0        |              | 20.50                         | 20.58       | 20.68       |                       | 3       | 2         | 1        |              | 20.38                  | 20.44       | 20.39       |
|                        | 5       | 0         | 0        |              | 20.40                         | 20.43       | 20.59       |                       | 5       | 0         | 0        |              | 20.50                  | 20.41       | 20.57       |
|                        | /       | /         | /        |              | /                             | /           | /           |                       | 5       | 0         | 1        |              | 20.40                  | 20.50       | 20.51       |
| LTE Cat-M1 B26/BW=5M   |         |           |          |              | ERP (dBm)                     |             |             | LTE Cat-M1 B26/BW=10M |         |           |          | ERP (dBm)    |                        |             |             |
| Modula-tion            | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             | Modula-tion           | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz) |             |             |
|                        |         |           |          |              | 26815/826.5                   | 26915/836.5 | 27015/846.5 |                       |         |           |          |              | 26840/829              | 26915/836.5 | 26990/844   |
| QPSK                   | 1       | 0         | 0        |              | 22.37                         | 22.35       | 22.39       | QPSK                  | 1       | 0         | 0        |              | 22.47                  | 22.44       | 22.41       |
|                        | 1       | 0         | 3        |              | 22.34                         | 22.32       | 22.37       |                       | 1       | 0         | 3        |              | 22.45                  | 22.42       | 22.38       |
|                        | 1       | 5         | 0        |              | 22.24                         | 22.28       | 22.43       |                       | 1       | 5         | 4        |              | 22.41                  | 22.36       | 22.39       |
|                        | 1       | 5         | 3        |              | 22.20                         | 22.24       | 22.33       |                       | 1       | 5         | 7        |              | 22.42                  | 22.45       | 22.37       |
|                        | 3       | 0         | 0        |              | 21.46                         | 21.43       | 21.47       |                       | 3       | 0         | 0        |              | 22.60                  | 22.53       | 22.46       |
|                        | 3       | 3         | 3        |              | 21.43                         | 21.40       | 21.41       |                       | 3       | 3         | 7        |              | 22.55                  | 22.48       | 22.50       |
|                        | 6       | 0         | 0        |              | 21.44                         | 21.47       | 21.46       |                       | 6       | 0         | 0        |              | 21.47                  | 21.47       | 21.51       |
|                        | 6       | 0         | 3        |              | 21.37                         | 21.50       | 21.41       |                       | 6       | 0         | 7        |              | 21.45                  | 21.52       | 21.42       |
| 16QAM                  | 1       | 0         | 0        |              | 22.47                         | 22.44       | 22.32       | 16QAM                 | 1       | 0         | 0        |              | 22.47                  | 22.37       | 22.33       |
|                        | 1       | 0         | 3        |              | 22.38                         | 22.41       | 22.21       |                       | 1       | 0         | 3        |              | 22.41                  | 22.34       | 22.26       |
|                        | 1       | 4         | 0        |              | 22.41                         | 22.47       | 22.28       |                       | 1       | 4         | 4        |              | 22.42                  | 22.50       | 22.33       |
|                        | 1       | 4         | 3        |              | 22.44                         | 21.58       | 22.32       |                       | 1       | 4         | 7        |              | 22.39                  | 22.46       | 22.38       |
|                        | 3       | 0         | 0        |              | 21.68                         | 21.71       | 21.77       |                       | 3       | 0         | 0        |              | 22.24                  | 22.31       | 22.27       |
|                        | 3       | 2         | 3        |              | 21.61                         | 21.67       | 21.63       |                       | 3       | 2         | 7        |              | 22.36                  | 22.27       | 22.25       |
|                        | 5       | 0         | 0        |              | 20.60                         | 20.47       | 20.51       |                       | 5       | 0         | 0        |              | 21.57                  | 21.64       | 21.61       |
|                        | 5       | 0         | 3        |              | 20.57                         | 20.44       | 20.47       |                       | 5       | 0         | 7        |              | 21.58                  | 21.57       | 21.53       |
| LTE Cat-M1 B26/BW=15M  |         |           |          |              | Average Conducted Power (dBm) |             |             |                       |         |           |          |              |                        |             |             |
| Modula-tion            | RB Size | RB Offset | NB Index | Max. Tune-up | Channel/Frequency(MHz)        |             |             |                       |         |           |          |              |                        |             |             |
|                        |         |           |          |              | 26865/831.5                   | 26915/836.5 | 26965/841.5 |                       |         |           |          |              |                        |             |             |
| QPSK                   | 1       | 0         | 0        |              | 22.62                         | 22.68       | 22.51       |                       |         |           |          |              |                        |             |             |
|                        | 1       | 0         | 3        |              | 22.60                         | 22.62       | 22.45       |                       |         |           |          |              |                        |             |             |
|                        | 1       | 5         | 8        |              | 22.56                         | 22.60       | 22.43       |                       |         |           |          |              |                        |             |             |
|                        | 1       | 5         | 11       |              | 22.52                         | 22.56       | 22.41       |                       |         |           |          |              |                        |             |             |
|                        | 3       | 0         | 0        |              | 22.61                         | 22.67       | 22.47       |                       |         |           |          |              |                        |             |             |
|                        | 3       | 3         | 11       |              | 22.56                         | 22.63       | 22.57       |                       |         |           |          |              |                        |             |             |
|                        | 6       | 0         | 0        |              | 22.31                         | 22.42       | 22.43       |                       |         |           |          |              |                        |             |             |
| 16QAM                  | 1       | 0         | 0        |              | 22.37                         | 22.42       | 22.36       |                       |         |           |          |              |                        |             |             |
|                        | 1       | 0         | 3        |              | 22.32                         | 22.38       | 22.33       |                       |         |           |          |              |                        |             |             |
|                        | 1       | 4         | 8        |              | 22.31                         | 22.37       | 22.30       |                       |         |           |          |              |                        |             |             |
|                        | 1       | 4         | 11       |              | 22.29                         | 22.39       | 22.24       |                       |         |           |          |              |                        |             |             |
|                        | 3       | 0         | 0        |              | 22.43                         | 22.32       | 22.37       |                       |         |           |          |              |                        |             |             |
|                        | 3       | 2         | 11       |              | 22.30                         | 22.22       | 22.35       |                       |         |           |          |              |                        |             |             |
|                        | 5       | 0         | 0        |              | 22.27                         | 22.29       | 22.26       |                       |         |           |          |              |                        |             |             |
| 5                      | 0       | 11        | 22.23    | 22.26        | 22.21                         |             |             |                       |         |           |          |              |                        |             |             |

| NB-IoT B5/BW=3.75kHz |        | ERP (dBm)    |                        |             |             | NB-IoT B5/BW=15kHz |        | ERP (dBm)    |                        |             |             |
|----------------------|--------|--------------|------------------------|-------------|-------------|--------------------|--------|--------------|------------------------|-------------|-------------|
| Modulation           | Ntones | Max. Tune-up | Channel/Frequency(MHz) |             |             | Modulation         | Ntones | Max. Tune-up | Channel/Frequency(MHz) |             |             |
|                      |        |              | 20401/824.1            | 20525/836.5 | 20649/848.9 |                    |        |              | 20401/824.1            | 20525/836.5 | 20649/848.9 |
| BPSK                 | 1@0    |              | 22.24                  | 22.19       | 22.18       | QPSK               | 1@0    |              | 22.24                  | 22.29       | 22.25       |
|                      | 1@47   |              | 22.15                  | 22.22       | 22.20       |                    | 1@11   |              | 22.22                  | 22.17       | 22.23       |
|                      |        |              |                        |             |             |                    |        |              | 22.20                  | 22.21       | 22.19       |

| NB-IoT B26/BW=3.75kHz |        | ERP (dBm)       |                        |                 |                 | NB-IoT B26/BW=15kHz |        | ERP (dBm)       |                        |                 |                 |
|-----------------------|--------|-----------------|------------------------|-----------------|-----------------|---------------------|--------|-----------------|------------------------|-----------------|-----------------|
| Modulation            | Ntones | Max.<br>Tune-up | Channel/Frequency(MHz) |                 |                 | Modulation          | Ntones | Max.<br>Tune-up | Channel/Frequency(MHz) |                 |                 |
|                       |        |                 | 26791/<br>824.1        | 26915/<br>836.5 | 27039/<br>848.9 |                     |        |                 | 26791/<br>824.1        | 26915/<br>836.5 | 27039/<br>848.9 |
| BPSK                  | 1@0    |                 | 22.08                  | 22.12           | 22.16           | QPSK                | 1@0    |                 | 22.23                  | 22.33           | 22.15           |
|                       | 1@47   |                 | 22.10                  | 22.13           | 22.17           |                     | 1@11   |                 | 22.17                  | 22.31           | 22.12           |
|                       |        |                 |                        |                 |                 |                     | 3@3    |                 | 22.20                  | 22.26           | 22.16           |

## 5.1.2 Radiated Spurious Emissions

### Limit

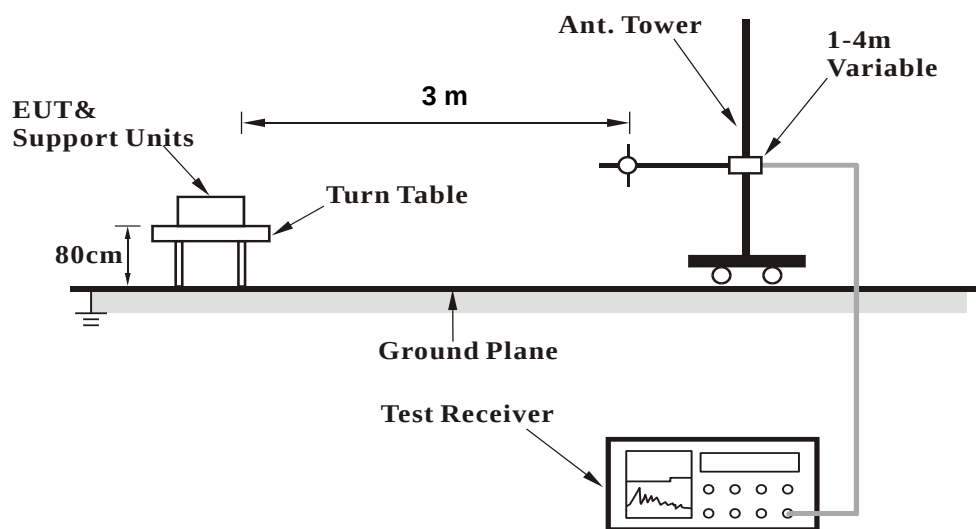
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

### Kind of Test Site

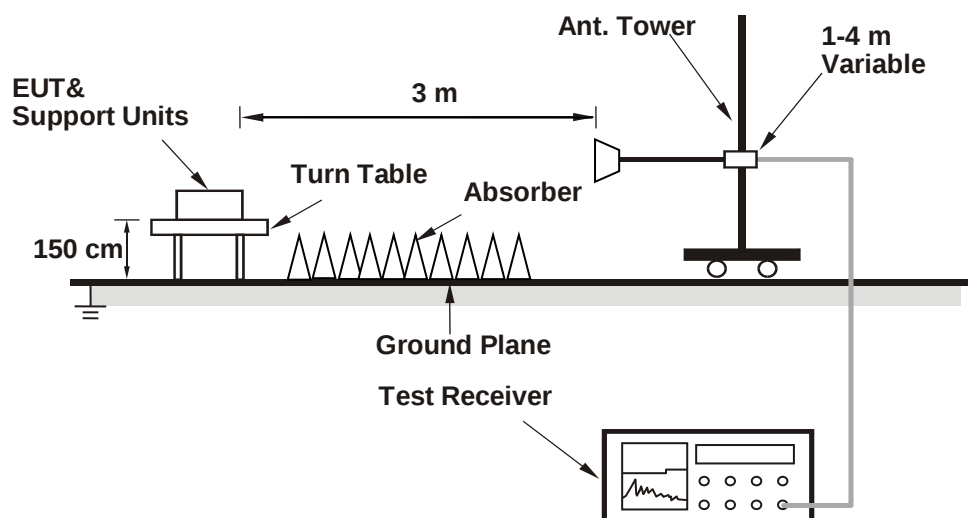
3m Semi-Anechoic Chamber

### Test Setup

#### <Radiated Emissions below or equal to 1 GHz>



#### <Radiated Emissions above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

**Test Instruments**

| Kind of Equipment  | Manufacturer | Type                    | S/N        | Calibration Date | Calibration Due Date |
|--------------------|--------------|-------------------------|------------|------------------|----------------------|
| Signal Analyzer    | R&S          | FSV40                   | 101508     | 2021/3/16        | 2022/3/15            |
| Receiver           | R&S          | ESR7                    | 102109     | 2021/3/16        | 2022/3/15            |
| Bilog Antenna      | SCHWARZBECK  | VULB-9168               | 00951      | 2021/2/18        | 2022/2/17            |
| Horn Antenna       | ETS-Lindgren | 3117                    | 00218930   | 2020/12/1        | 2021/11/30           |
| LF-AMP             | Agilent      | 8447D                   | 2944A10772 | 2021/2/18        | 2022/2/17            |
| HF-AMP + AC source | EMCI         | EMC051845SE             | 980633     | 2021/2/9         | 2022/2/8             |
| HF-AMP + AC source | EMCI         | EMC184045SE             | 980657     | 2021/2/1         | 2022/1/31            |
| Horn Antenna       | SCHWARZBECK  | BBHA 9170               | 00887      | 2021/4/8         | 2022/4/7             |
| Microwave Cable    | HUBER+SUHNER | SUCOFLEX 104EA          | 800056/4EA | 2021/3/17        | 2022/3/16            |
| Microwave Cable    | HUBER+SUHNER | SUCOFLEX 104            | 804680/4   | 2021/3/17        | 2022/3/16            |
| Microwave Cable    | HUBER+SUHNER | SUCOFLEX 104            | MY37202/4  | 2021/3/17        | 2022/3/16            |
| Microwave Cable    | HUBER+SUHNER | SUCOFLEX 102EA          | 800898/2EA | 2021/4/16        | 2022/4/15            |
| Microwave Cable    | HUBER+SUHNER | SUCOFLEX 102EA          | 800901/2EA | 2021/4/16        | 2022/4/15            |
| Microwave Cable    | HUBER+SUHNER | SUCOFLEX 102EA          | 801027/2EA | 2021/4/16        | 2022/4/15            |
| Loop Antenna       | Chance Most  | EMCILPA600 +calibration | 287        | 2021/1/15        | 2022/1/14            |

**Test Procedures**

- Substitution method is used for E.I.R.P. measurement. In the semi-anechoic chamber, EUT placed on the 0.8m (below or equal to 1 GHz) and/or 1.5m (above 1 GHz) height of turn table, rotated the table around horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
  - The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the turn table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
  - E.I.R.P. = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
  - E.R.P. can be calculated from E.I.R.P. by subtracting the gain of dipole, E.R.P. = E.I.R.P – 2.15 dB.
- Note:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
- Testing was carried out within frequency range 30 MHz to the tenth harmonic.
- All modes of operation were investigated and the worst-case emissions are reported.
- The Radiated Emissions testing was performed in the X(E1), Y(H) and Z(E2) axis orientation. The worst-case Axis orientation is recorded in this test report.

**Test Results**

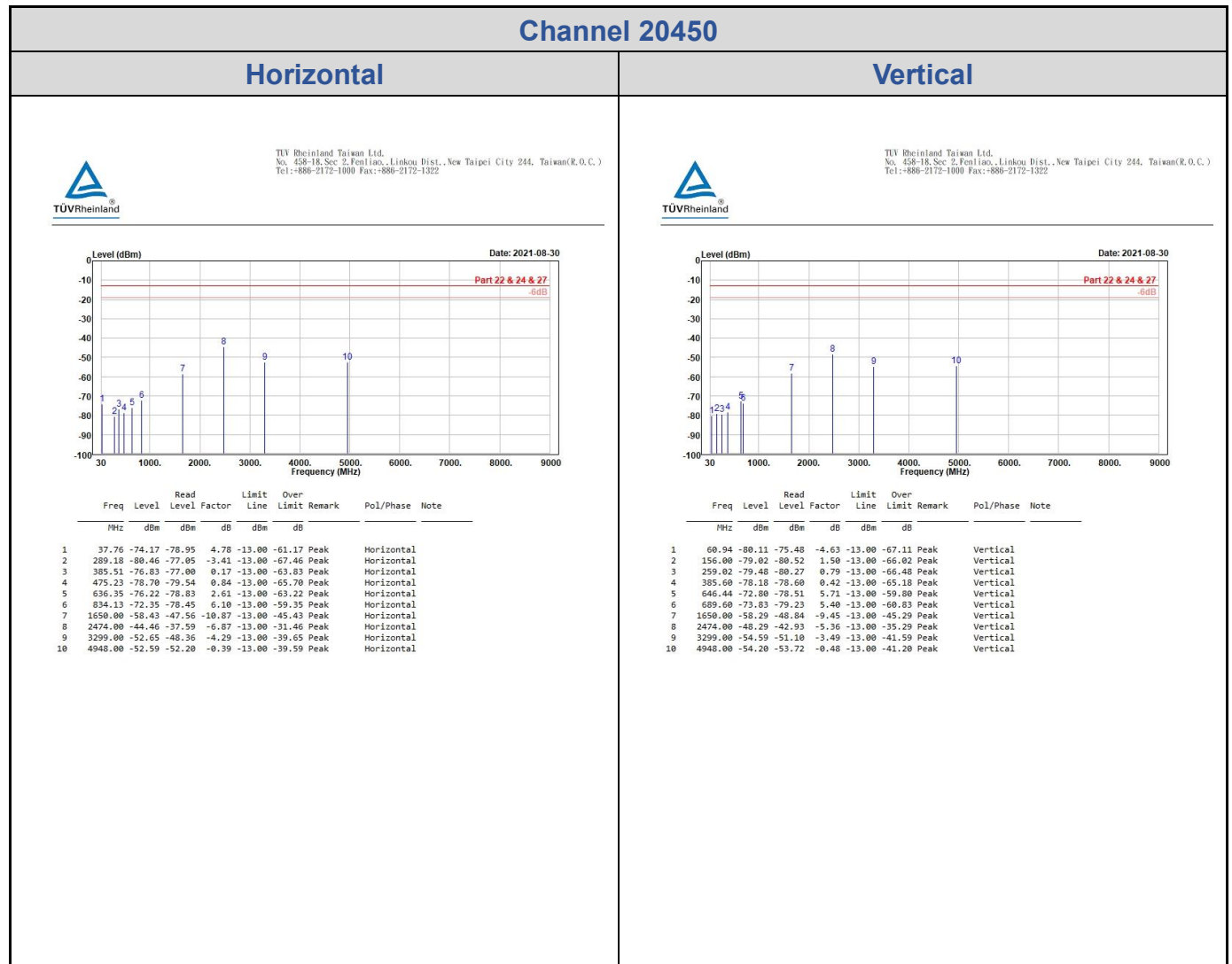
Please refer to Appendix A.

## Appendix A: Test Results of Radiated Spurious Emissions

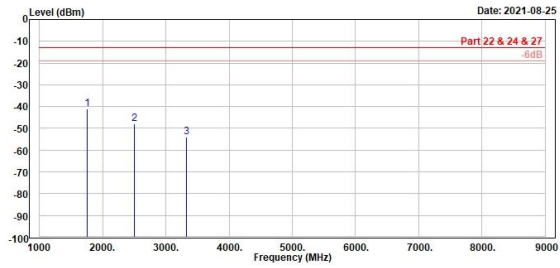
Link Mode, 30MHz ~ 10<sup>th</sup>

<Cat-M1>

LTE Band 5

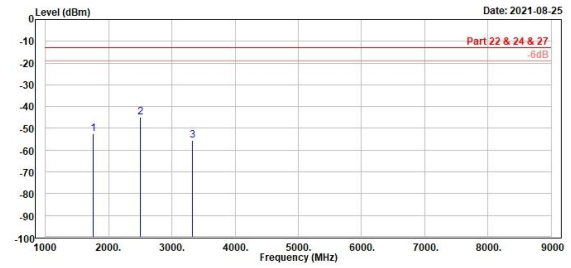


**Channel 20525**
**Horizontal**

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|   | Freq    | Level  | Read   | Limit  | Over   | Remark      | Pol/Phase  | Note |
|---|---------|--------|--------|--------|--------|-------------|------------|------|
|   | MHz     | dBm    | Level  | Line   | Limit  |             |            |      |
|   |         | dBm    | Factor | dB     | dB     |             |            |      |
| 1 | 1757.00 | -41.20 | -30.95 | -10.25 | -13.00 | -28.20 Peak | Horizontal |      |
| 2 | 2497.00 | -47.82 | -41.04 | -6.78  | -13.00 | -34.82 Peak | Horizontal |      |
| 3 | 3329.00 | -54.10 | -49.90 | -4.20  | -13.00 | -41.10 Peak | Horizontal |      |

**Vertical**

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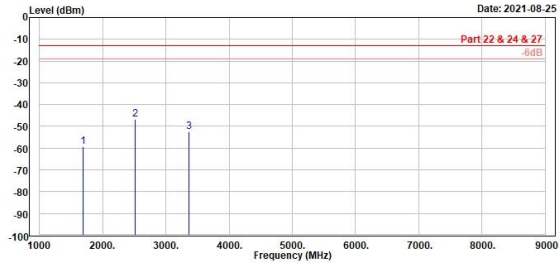
|   | Freq    | Level  | Read   | Limit | Over   | Remark      | Pol/Phase | Note |
|---|---------|--------|--------|-------|--------|-------------|-----------|------|
|   | MHz     | dBm    | Level  | Line  | Limit  |             |           |      |
|   |         | dBm    | Factor | dB    | dB     |             |           |      |
| 1 | 1757.00 | -52.50 | -43.76 | -8.74 | -13.00 | -39.50 Peak | Vertical  |      |
| 2 | 2497.00 | -44.82 | -39.54 | -5.28 | -13.00 | -31.82 Peak | Vertical  |      |
| 3 | 3329.00 | -55.38 | -51.95 | -3.43 | -13.00 | -42.38 Peak | Vertical  |      |

**Channel 20600**

**Horizontal**



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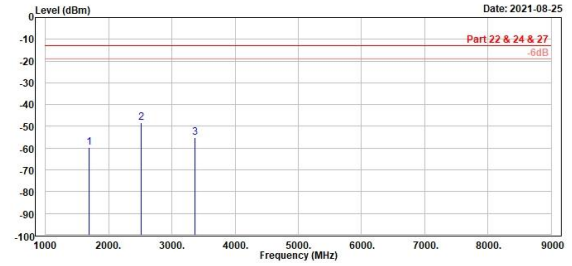


|   | Freq    | Level  | Read   | Level  | Factor | Limit  | Over | Remark     | Pol/Phase  | Note |
|---|---------|--------|--------|--------|--------|--------|------|------------|------------|------|
|   | MHz     | dBm    | dBm    | dB     | dB     | dBm    | dB   |            |            |      |
| 1 | 1688.00 | -59.34 | -48.69 | -10.65 | -13.00 | -46.34 | Peak | Horizontal | Horizontal |      |
| 2 | 2520.00 | -46.77 | -40.07 | -6.70  | -13.00 | -33.77 | Peak | Horizontal | Horizontal |      |
| 3 | 3359.00 | -52.42 | -40.31 | -4.11  | -13.00 | -39.42 | Peak | Horizontal | Horizontal |      |

**Vertical**



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|   | Freq    | Level  | Read   | Level | Factor | Limit  | Over | Remark   | Pol/Phase | Note |
|---|---------|--------|--------|-------|--------|--------|------|----------|-----------|------|
|   | MHz     | dBm    | dBm    | dB    | dB     | dBm    | dB   |          |           |      |
| 1 | 1688.00 | -59.60 | -50.40 | -9.20 | -13.00 | -46.60 | Peak | Vertical | Vertical  |      |
| 2 | 2520.00 | -48.33 | -43.11 | -5.22 | -13.00 | -35.33 | Peak | Vertical | Vertical  |      |
| 3 | 3359.00 | -55.02 | -51.05 | -3.97 | -13.00 | -42.02 | Peak | Vertical | Vertical  |      |

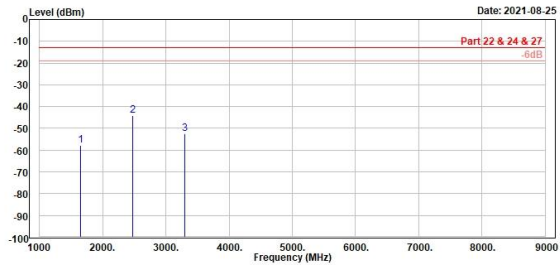
## LTE Band 26

### Channel 26865

#### Horizontal



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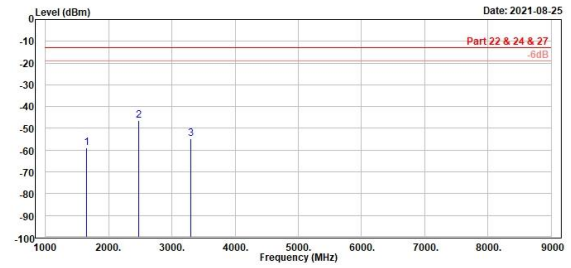


| Freq      | Level  | Read   | Level  | Factor | Limit  | Over | Remark     | Pol/Phase | Note |
|-----------|--------|--------|--------|--------|--------|------|------------|-----------|------|
| MHz       | dBm    | dBm    | dB     | dB     | dBm    | dB   |            |           |      |
| 1 1650.00 | -57.75 | -46.88 | -10.87 | -13.00 | -44.75 | Peak | Horizontal |           |      |
| 2 2475.00 | -44.02 | -37.15 | -6.87  | -13.00 | -31.02 | Peak | Horizontal |           |      |
| 3 3300.00 | -52.64 | -40.35 | -4.29  | -13.00 | -39.64 | Peak | Horizontal |           |      |

#### Vertical



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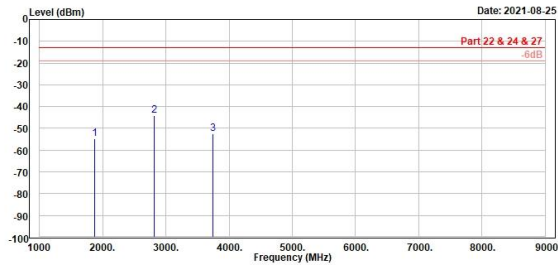
| Freq      | Level  | Read   | Level | Factor | Limit  | Over | Remark   | Pol/Phase | Note |
|-----------|--------|--------|-------|--------|--------|------|----------|-----------|------|
| MHz       | dBm    | dBm    | dB    | dB     | dBm    | dB   |          |           |      |
| 1 1651.00 | -58.94 | -49.50 | -9.44 | -13.00 | -45.94 | Peak | Vertical |           |      |
| 2 2475.00 | -46.56 | -41.21 | -5.35 | -13.00 | -33.56 | Peak | Vertical |           |      |
| 3 3300.00 | -54.64 | -51.15 | -3.49 | -13.00 | -41.64 | Peak | Vertical |           |      |

Channel 26915

Horizontal



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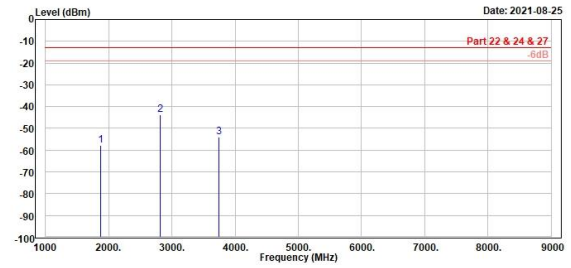


|   | Freq    | Level  | Read   | Limit | Over   | APos   | TPos | Remark | Pol/Phase | Note       |
|---|---------|--------|--------|-------|--------|--------|------|--------|-----------|------------|
|   | MHz     | dBm    | Level  | Line  | Limit  | cm     | deg  |        |           |            |
| 1 | 1873.00 | -54.60 | -45.03 | -9.57 | -13.00 | -41.60 | ---  | ---    | Peak      | Horizontal |
| 2 | 2809.50 | -44.25 | -38.45 | -5.80 | -13.00 | -31.25 | ---  | ---    | Peak      | Horizontal |
| 3 | 3746.00 | -52.44 | -49.32 | -3.12 | -13.00 | -39.44 | ---  | ---    | Peak      | Horizontal |

Vertical



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|   | Freq    | Level  | Read   | Limit | Over   | APos   | TPos | Remark | Pol/Phase | Note     |
|---|---------|--------|--------|-------|--------|--------|------|--------|-----------|----------|
|   | MHz     | dBm    | Level  | Line  | Limit  | cm     | deg  |        |           |          |
| 1 | 1873.00 | -57.87 | -49.90 | -7.97 | -13.00 | -44.87 | ---  | ---    | Peak      | Vertical |
| 2 | 2809.50 | -43.59 | -39.04 | -4.55 | -13.00 | -30.59 | ---  | ---    | Peak      | Vertical |
| 3 | 3746.00 | -53.98 | -51.27 | -2.71 | -13.00 | -40.98 | ---  | ---    | Peak      | Vertical |

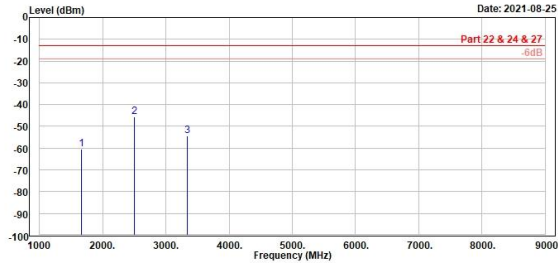
**Channel 26965**

**Horizontal**

**Vertical**



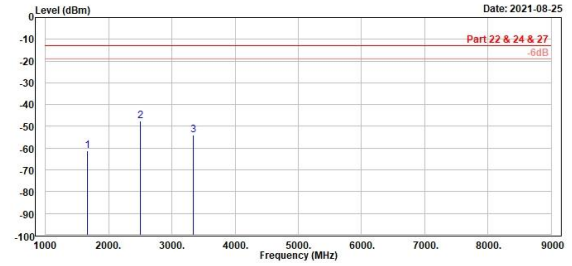
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|   | Freq    | Level  | Read   | Limit  | Over   | Remark      | Pol/Phase  | Note |
|---|---------|--------|--------|--------|--------|-------------|------------|------|
|   | MHz     | dBm    | Level  | Line   | Limit  |             |            |      |
|   |         |        | Factor |        |        |             |            |      |
|   |         |        | dB     | dB     | dB     |             |            |      |
| 1 | 1670.00 | -60.29 | -49.54 | -10.75 | -13.00 | -47.29 Peak | Horizontal |      |
| 2 | 2505.00 | -45.54 | -38.79 | -6.75  | -13.00 | -32.54 Peak | Horizontal |      |
| 3 | 3340.00 | -54.52 | -50.35 | -4.17  | -13.00 | -41.52 Peak | Horizontal |      |



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|   | Freq    | Level  | Read   | Limit | Over   | Remark      | Pol/Phase | Note |
|---|---------|--------|--------|-------|--------|-------------|-----------|------|
|   | MHz     | dBm    | Level  | Line  | Limit  |             |           |      |
|   |         |        | Factor |       |        |             |           |      |
|   |         |        | dB     | dB    | dB     |             |           |      |
| 1 | 1670.00 | -61.05 | -51.73 | -9.32 | -13.00 | -48.05 Peak | Vertical  |      |
| 2 | 2505.00 | -47.50 | -42.25 | -5.25 | -13.00 | -34.50 Peak | Vertical  |      |
| 3 | 3340.00 | -54.01 | -50.60 | -3.41 | -13.00 | -41.01 Peak | Vertical  |      |

<NB-IoT>

LTE Band 5

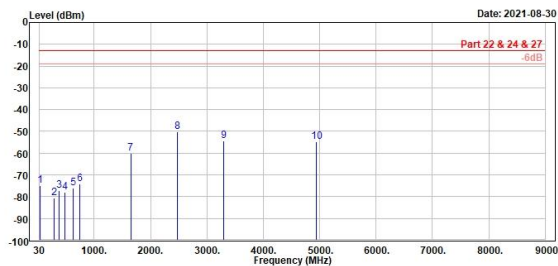
Channel 20401

Horizontal

Vertical



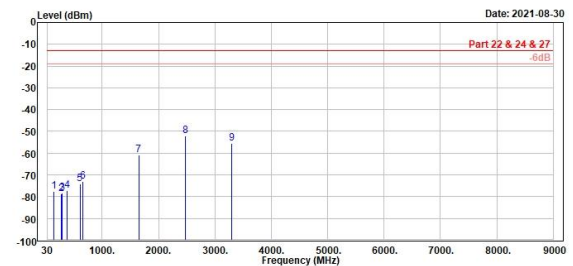
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| Freq | Level   | Read   | Factor | Limit  | Over   | Remark      | Pol/Phase  | Note |
|------|---------|--------|--------|--------|--------|-------------|------------|------|
| MHz  | dBm     | dBm    | dB     | dBm    | dB     |             |            |      |
| 1    | 41.45   | -75.03 | -79.49 | 4.46   | -13.00 | -62.03 Peak | Horizontal |      |
| 2    | 289.18  | -80.44 | -77.03 | -3.41  | -13.00 | -67.44 Peak | Horizontal |      |
| 3    | 385.41  | -77.14 | -77.30 | 0.16   | -13.00 | -64.14 Peak | Horizontal |      |
| 4    | 484.54  | -78.09 | -78.97 | 0.88   | -13.00 | -65.09 Peak | Horizontal |      |
| 5    | 633.83  | -75.90 | -78.46 | 2.56   | -13.00 | -62.90 Peak | Horizontal |      |
| 6    | 752.65  | -73.97 | -79.13 | 5.16   | -13.00 | -68.97 Peak | Horizontal |      |
| 7    | 1640.00 | -60.06 | -49.17 | -10.89 | -13.00 | -47.06 Peak | Horizontal |      |
| 8    | 2472.00 | -50.22 | -43.34 | -6.88  | -13.00 | -37.22 Peak | Horizontal |      |
| 9    | 3296.00 | -54.21 | -49.91 | -4.30  | -13.00 | -41.21 Peak | Horizontal |      |
| 10   | 4944.00 | -54.73 | -54.33 | -0.40  | -13.00 | -41.73 Peak | Horizontal |      |



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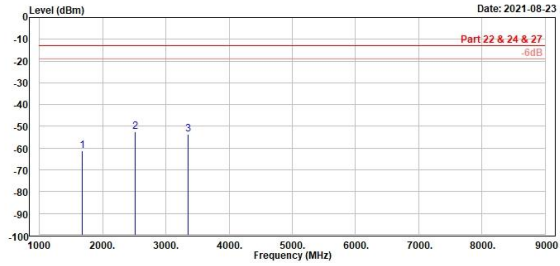
| Freq | Level   | Read   | Factor | Limit | Over   | Remark      | Pol/Phase | Note |
|------|---------|--------|--------|-------|--------|-------------|-----------|------|
| MHz  | dBm     | dBm    | dB     | dBm   | dB     |             |           |      |
| 1    | 145.24  | -77.56 | -78.62 | 1.06  | -13.00 | -64.56 Peak | Vertical  |      |
| 2    | 269.30  | -78.65 | -79.35 | 0.70  | -13.00 | -65.65 Peak | Vertical  |      |
| 3    | 289.18  | -78.40 | -78.99 | 0.51  | -13.00 | -65.40 Peak | Vertical  |      |
| 4    | 385.51  | -77.21 | -77.63 | 0.42  | -13.00 | -64.21 Peak | Vertical  |      |
| 5    | 606.47  | -74.02 | -79.06 | 5.04  | -13.00 | -61.02 Peak | Vertical  |      |
| 6    | 654.78  | -72.84 | -78.56 | 5.72  | -13.00 | -59.84 Peak | Vertical  |      |
| 7    | 1640.00 | -60.00 | -51.33 | -9.47 | -13.00 | -47.00 Peak | Vertical  |      |
| 8    | 2472.00 | -51.96 | -46.59 | -5.37 | -13.00 | -38.96 Peak | Vertical  |      |
| 9    | 3296.00 | -55.63 | -52.14 | -3.49 | -13.00 | -42.63 Peak | Vertical  |      |

**Channel 20525**

**Horizontal**



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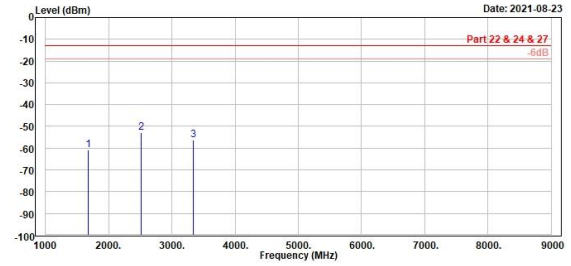


|   | Freq    | Level  | Read   | Limit  | Over   | Remark      | Pol/Phase  | Note |
|---|---------|--------|--------|--------|--------|-------------|------------|------|
|   | MHz     | dBm    | Level  | Line   | Limit  |             |            |      |
|   |         | dBm    | Factor | dB     | dB     |             |            |      |
| 1 | 1672.00 | -61.04 | -50.30 | -10.74 | -13.00 | -48.04 Peak | Horizontal |      |
| 2 | 2509.00 | -52.50 | -45.76 | -6.74  | -13.00 | -39.50 Peak | Horizontal |      |
| 3 | 3346.00 | -53.66 | -49.51 | -4.15  | -13.00 | -40.66 Peak | Horizontal |      |

**Vertical**



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|   | Freq    | Level  | Read   | Limit | Over   | Remark      | Pol/Phase | Note |
|---|---------|--------|--------|-------|--------|-------------|-----------|------|
|   | MHz     | dBm    | Level  | Line  | Limit  |             |           |      |
|   |         | dBm    | Factor | dB    | dB     |             |           |      |
| 1 | 1672.00 | -60.83 | -51.52 | -9.31 | -13.00 | -47.83 Peak | Vertical  |      |
| 2 | 2509.00 | -52.94 | -47.69 | -5.25 | -13.00 | -39.94 Peak | Vertical  |      |
| 3 | 3345.00 | -56.41 | -53.02 | -3.39 | -13.00 | -43.41 Peak | Vertical  |      |

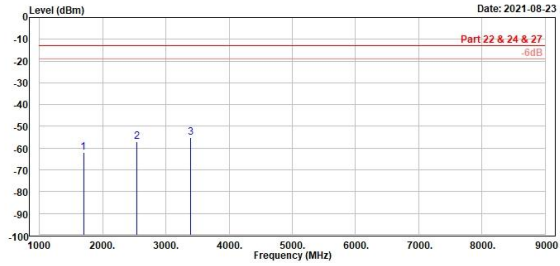
**Channel 20649**

**Horizontal**

**Vertical**



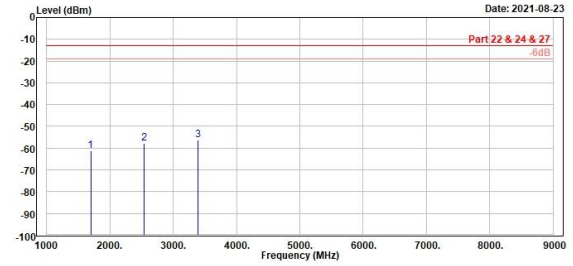
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|   | Freq    | Level  | Read   | Limit  | Over   | Remark      | Pol/Phase  | Note |
|---|---------|--------|--------|--------|--------|-------------|------------|------|
|   | MHz     | dBm    | Level  | Line   | Limit  |             |            |      |
|   |         |        | Factor |        |        |             |            |      |
|   |         |        | dB     | dB     | dB     |             |            |      |
| 1 | 1697.00 | -62.01 | -51.41 | -10.60 | -13.00 | -49.01 Peak | Horizontal |      |
| 2 | 2546.00 | -56.96 | -50.33 | -6.63  | -13.00 | -43.96 Peak | Horizontal |      |
| 3 | 3395.00 | -55.13 | -51.13 | -4.00  | -13.00 | -42.13 Peak | Horizontal |      |



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|   | Freq    | Level  | Read   | Limit | Over   | Remark      | Pol/Phase | Note |
|---|---------|--------|--------|-------|--------|-------------|-----------|------|
|   | MHz     | dBm    | Level  | Line  | Limit  |             |           |      |
|   |         |        | Factor |       |        |             |           |      |
|   |         |        | dB     | dB    | dB     |             |           |      |
| 1 | 1697.00 | -61.09 | -51.94 | -9.15 | -13.00 | -48.09 Peak | Vertical  |      |
| 2 | 2546.00 | -57.81 | -52.65 | -5.16 | -13.00 | -44.81 Peak | Vertical  |      |
| 3 | 3395.00 | -56.17 | -52.08 | -3.29 | -13.00 | -43.17 Peak | Vertical  |      |

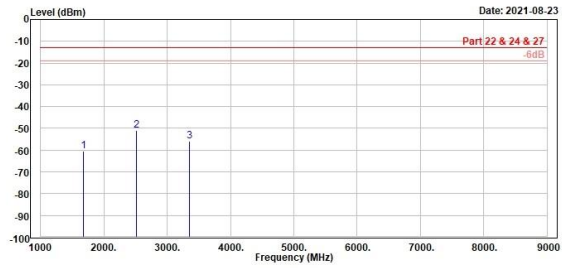
| # | Freq    | Level  | Read Limit | Factor | Limit  | Over   | Apos | Tpos | Remark | Pol/Phase | Note |
|---|---------|--------|------------|--------|--------|--------|------|------|--------|-----------|------|
|   | MHz     | dBm    | dBm        | dB     | dBm    | dB     | cm   | deg  |        |           |      |
| 1 | 150.09  | -78.70 | -80.28     | 1.58   | +13.00 | -65.70 | ---  | ---  | Peak   | Vertical  |      |
| 2 | 245.73  | -79.35 | -80.81     | 0.66   | +13.00 | -66.35 | ---  | ---  | Peak   | Vertical  |      |
| 3 | 385.51  | -78.67 | -79.09     | 0.42   | +13.00 | -64.44 | ---  | ---  | Peak   | Vertical  |      |
| 4 | 519.17  | -77.44 | -79.30     | 1.86   | +13.00 | -64.44 | ---  | ---  | Peak   | Vertical  |      |
| 5 | 780.68  | -73.70 | ---        | 5.47   | +13.00 | -58.86 | ---  | ---  | Peak   | Vertical  |      |
| 6 | 884.76  | -71.86 | -79.09     | 7.23   | +13.00 | -70.70 | ---  | ---  | Peak   | Vertical  |      |
| 7 | 1648.08 | -59.54 | -80.67     | -9.47  | +13.00 | -46.54 | ---  | ---  | Peak   | Vertical  |      |
| 8 | 2472.78 | -49.27 | ---        | 1.87   | +13.00 | -33.86 | ---  | ---  | Peak   | Vertical  |      |
| 9 | 3296.00 | -55.86 | -52.37     | -3.49  | +13.00 | -42.87 | ---  | ---  | Peak   | Vertical  |      |

Channel 26915

Horizontal



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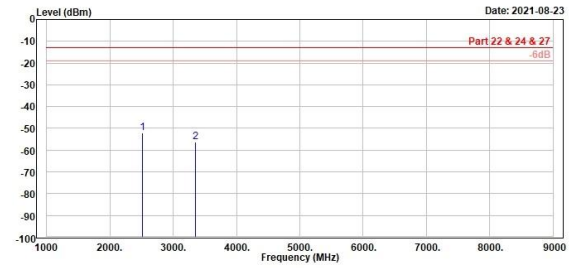


|   | Freq    | Level  | Read   | Limit  | Over   | APos   | TPos | Remark | Pol/Phase | Note       |
|---|---------|--------|--------|--------|--------|--------|------|--------|-----------|------------|
|   | MHz     | dBm    | Level  | Line   | Limit  | cm     | deg  |        |           |            |
| 1 | 1673.00 | -60.56 | -49.82 | -10.74 | -13.00 | -47.56 | ---  | ---    | Peak      | Horizontal |
| 2 | 2509.00 | -50.96 | -44.22 | -6.74  | -13.00 | -37.96 | ---  | ---    | Peak      | Horizontal |
| 3 | 3346.00 | -55.76 | -51.61 | -4.15  | -13.00 | -42.76 | ---  | ---    | Peak      | Horizontal |

Vertical



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|   | Freq    | Level  | Read   | Limit | Over   | APos   | TPos | Remark | Pol/Phase | Note     |
|---|---------|--------|--------|-------|--------|--------|------|--------|-----------|----------|
|   | MHz     | dBm    | Level  | Line  | Limit  | cm     | deg  |        |           |          |
| 1 | 2509.00 | -52.10 | -46.85 | -5.25 | -13.00 | -39.10 | ---  | ---    | Peak      | Vertical |
| 2 | 3346.00 | -56.45 | -53.06 | -3.39 | -13.00 | -43.45 | ---  | ---    | Peak      | Vertical |

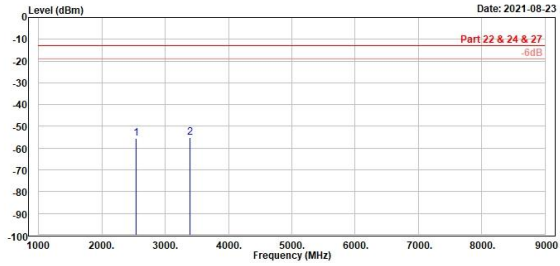
**Channel 27039**

**Horizontal**

**Vertical**



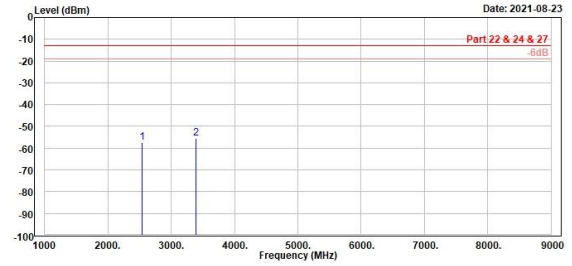
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| Freq | Level   | Read   | Level  | Factor | Limit  | Over   | Limit | Remark | Pol/Phase  | Note |
|------|---------|--------|--------|--------|--------|--------|-------|--------|------------|------|
| MHz  | dBm     | dBm    | dB     | dB     | dBm    | dB     |       |        |            |      |
| 1    | 2546.00 | -55.53 | -48.90 | -6.63  | -13.00 | -42.53 | Peak  |        | Horizontal |      |
| 2    | 3395.00 | -55.05 | -51.05 | -4.00  | -13.00 | -42.05 | Peak  |        | Horizontal |      |



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| Freq | Level   | Read   | Level  | Factor | Limit  | Over   | Limit | Remark | Pol/Phase | Note |
|------|---------|--------|--------|--------|--------|--------|-------|--------|-----------|------|
| MHz  | dBm     | dBm    | dB     | dB     | dBm    | dB     |       |        |           |      |
| 1    | 2546.00 | -57.49 | -52.33 | -5.16  | -13.00 | -44.49 | Peak  |        | Vertical  |      |
| 2    | 3395.00 | -55.65 | -52.36 | -3.29  | -13.00 | -42.65 | Peak  |        | Vertical  |      |